Application Number 10/532795
Response to Office Action dated 05/31/2007

REMARKS

Applicants request reconsideration of the claims in view of the amendments and remarks herein. Claims 1-3 are cancelled without prejudice or disclaimer and claim 4 is amended. Support in the originally filed specification for the amendment to claim 4 is given on page 12, lines 11-19, and again on page 15, lines 5-12. Claims 4-6 are pending.

Figure 5 has been amended to insert the legend –Prior Art--. A replacement sheet is presented.

Applicants revise claim 4 to address the Examiner's objections to the claim.

The rejection of claims 1-2 as being anticipated by Kimura 2002/0043636 and the rejection of claim 3 as being anticipated by Oostman Jr. et al. 2003/0048539 are moot because Applicants canceled claims 1-3; Applicants, however, are not conceding the correctness of the rejection.

Applicants traverse the rejection of claims 4-6 as being obvious over Kimura 2002/0043636 (Kimura '636) in view of Oostman, Jr. et al. 2003/0048539 (Oostman '539). Neither Kimura '636 nor Oostman '539 teach or suggest that the light source unit comprises an actinometer disposed between the reaction container and the output dichroic mirror positioned nearest the reaction container, as required by claim 4. An advantage not realized by either Kimura '636 or Oostman '539 is that the actinometer monitors deterioration of the light emitting devices and influences resulting from temperature changes surrounding the light emitting devices. The use of the actinometer provides an enhanced detection of the compounds within the reaction container and better genetic diagnosis, *see* Applicants' specification at page 12, line 16. Both Kimura '636 and Oostman '539 are silent about the effects of temperature on the measurements obtained by their devices.

One of ordinary skill in the art, moreover, would not be inclined to modify either Kimura '636 or Oostman '539 to include an actinometer. Specifically, Kimura '636 teaches that the sample is stimulated with light having only one specific wavelength at a time, and then when detecting the fluoresced light, light of the stimulating wavelength is filtered so that the light detector does not receive light emitted from the light source. For example, *see* Kimura '636 at ¶[0129] which describes the light source emitting light having a wavelength of 640 nanometers and ¶[0140] which describes using a corresponding filter that cuts off light of the wavelength of 640 nanometers corresponding to the stimulating ray; ¶[0147] where the stimulating light is 532 nanometer wavelength and ¶[0157] where the inserted filter cuts off light having a wavelength of 532 nanometers. Thus, with Kimura '636, the stimulating light is filtered so variations in the output of the stimulating light resulting from thermal effects need not be compensated for; in other words, there is no need for an actinometer.

Similarly, Oostman '539 is directed towards flow cytometry and detection of constituents in a large nonhomogenous sample. Oostman '539 specifically mentions that it is not concerned with thermal effects caused by the output power of the light emitting sources, *see* Oostman '539 at ¶[0028]. Oostman '539 could not teach or suggest the use of an actinometer because of the nature of the sample and the multiple wavelengths that are emitted from the sample.

Neither Kimura '636 nor Oostman '539, moreover, provide a photoreceptive unit having the plurality of photoreceptors arranged so that the surfaces of the photoreceptors are in parallel to each other, as required by claim 4. Oostman '539 specifically teaches clusters of photoreceptors wherein the receiving surfaces of the photoreceptors are either in a circular arrangement such as shown in Figures 6-8 or are inclined at an angle between five and twenty degrees to perpendicular, *see* ¶[0033] and Figure 5. Thus, even if, as the rejection surmises, the photoreceptive unit of Oostman '539 were to be included with the light source of Kimura '636, the combination does not teach all the elements of

claim 4. Thus, Applicants request withdrawal of the rejection of claims 4-6 under 35 U.S.C. §103(a) based on Kimura '636 in view of Oostman '539.

Claims 5-6 are allowable at least by virtue of their dependence upon claim 4 above. Applicants do not concede the correctness of the rejection.

Applicants request allowance of claims 4-6 in view of the amendments and the remarks herein. The Examiner is invited to telephone attorney Douglas P. Mueller at 612.455.3804 should there be any questions or issues that could easily be resolved with a telephone conversation.

Respectfully submitted,

HAMRE, SCHUMANN, MUELLER & LARSON, P.C.
P.O. Box 2902
Minneapolis, MN 55402-0902
(612) 455-3800

Dated: August 31, 2007

By: _____
Douglas P. Mueller
Reg. No. 30,300
DPM/KO/ls